

1 17. (Amended) A method for providing network information services to a user of a
2 computer system coupled to computer networks, the method comprising the steps of:
3 controlling operations of the computer system with an operating system coupled
4 to a software component architecture of the system;
5 integrating a network component layer of the computer system with the software
6 component architecture to provide a cooperating component computing arrangement by
7 providing a platform for developing network navigation components for operation on a
8 variety of hardware and software computer systems, the network navigation components
9 constructed to represent different network resources available on the computer network;
10 creating a plurality of network navigation components using the cooperating
11 component computing arrangement; and
12 invoking a selected one of the created network navigation components to provide
13 a selected network service that enhances the ability of the user to access information on
14 the computer networks.

REMARKS

In this response to the Office Action, claims 3, 9, 10 and 20 have been cancelled.
In particular, the limitation in claim 3 has been incorporated into claim 1; the limitation in
claim 10 has been incorporated into claim 7; and the limitation in claim 20 has been in-
corporated into claim 17. Accordingly, claims 1-2, 4-8, and 11-19 are pending in this
response. In the Office Action, previous claims 1-20 have been rejected under 35 U.S.C.
§ 103 as being obvious over Duggan et al., U.S. Patent No. 5,584,035 (hereinafter "Dug-
gan") in view of Anderson et al., U.S. Patent No. 5,537,526 (hereinafter "Anderson").

Applicants believe that the claims as amended overcome the cited references, and accordingly, respectfully request reexamination and reconsideration.

1. The Present Invention

The present invention is directed to an extensible and replaceable network-oriented component system that provides a platform for developing *network navigation components* that operate on a variety of hardware and software computer systems. Such a highly-modular cooperating layered-arrangement between the network component system and the component architecture layer allows a component to be easily replaced, and allows new components to be added. Significantly, the present invention provides a network navigating service which employs a “*component-based*” approach to browsing and retrieving network-oriented information as opposed to the monolithic application-based approach of prior browsing systems.

To provide the extensible and replaceable network *component* system of the present invention, the system includes a network *component* layer 450 (see Fig. 4) that delivers services and facilitates development of navigation *components* directed to computer networks, such as the Internet. Specifically, the network *component* layer 450 extends the functionality of the underlying *component* architecture layer 430 by defining network-oriented *components* 480. The network *component* layer 450 and the *component* architecture layer 430 cooperate to provide a user with the ability to extend or replace any of the *components* of the layered computing arrangements 400 with a different *component* to provide the user with customized computer *network-related* services.

Accordingly, independent claim 1 recites a network component layer for devel-

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oping network navigation components that provide services directed to the computer network, the network component layer includes application programming interfaces; and a first class included in the application programming interfaces to construct a first network navigation object that represents different network resources available on the computer network, wherein the network component layer coupled to the software component architecture layer in integrating relation to facilitate communication among the computing and network navigation components.

Independent claim 7 recites a network component layer for creating network navigation components configured to search and obtain information available on the computer networks, the computer component layer includes application programming interfaces; and means for constructing a network navigation component that represents different resources available on the computer network, wherein the network component layer is integrally coupled to the software component architecture layer to insure communication among the computing and network navigation components. Independent claim 17 recites integrating a network component layer of the computer system with the software component architecture to provide a cooperating component computing arrangement by providing a platform for developing the network navigation components for operation on a variety of hardware and software computer systems, the network navigation components constructed to represent different network resources available on the computer network. Support for these amendments are found, for example, on page 30, line 2 - page 32, line 6.

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2. Rejection Under 35 U.S.C. § 103

The Office Action has acknowledged that Duggan does not explicitly teach a network component layer. However, the Office Action suggests that Anderson teaches a network component layer as claimed. Applicants respectfully traverse the rejection.

Anderson pertains to providing a document processing system in which object-oriented frameworks are utilized to implement particular document processing techniques, including an object-oriented compound document system (see Summary of the Invention). In particular, a fair and accurate reading of Anderson reveals that it pertains to how various data are represented in a seamless integration. The data may include voice, graphics, bitmapped images, pictures, tables, video text, financial data files, and program components. However, Anderson does not teach or suggest a network navigation component as recited in the independent claims.


For example, Applicants' network component layer includes application programming interfaces and a first class included in the application programming interfaces to construct a first network navigation object that represents different network resources available on the computer network. Nowhere does Anderson teach or suggest a first network navigation object being constructed using application programming interfaces to represent different network resources available at any location on the computer networks. Columns 17-20 of Anderson is repeatedly cited as disclosing a network component layer as claimed. While Anderson mentions importing data through a communication link in the cited passage, it does not teach or suggest constructing a network navigation object that represents different network resources. Therefore, Anderson does not teach or sug-

gest Applicants' network component layer that includes application programming interfaces and a first class included in the application programming interfaces to construct a first network navigation object that represents different network resources available on the computer network as recited in claim 1, as amended. Anderson thus fails to render claim 1, as amended, obvious. Other independent claims recite similar features and are not rendered obvious for similar reasons. In summary, Duggan and Anderson, individually or combined do not render the independent claims obvious. As to the remaining claims, these claims are allowable by virtue of their dependency on the allowable independent claims.

In light of the foregoing, the claims are now believed to be in condition for allowance. In the event the Examiner deems personal contact desirable in disposition of this case, the Examiner is invited to call the undersigned attorney at (617) 951-3080.

Please charge any additional fee occasioned by this paper to our Deposit Account No. 03-1237.

Respectfully submitted,



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